

REMARKS

In response to the Office Action mailed on February 28, 2007, Applicants amended claims 7 and 9. Claims 1-3, 5-12, and 14 are presented for examination.

Claims 1-3, 5, 6, 8-12, and 14 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Ichinose et al. (US 6,472,594, "Ichinose") in view of Yu et al. (US 6,483,099, "Yu"). Claims 1-3, 5, 6, 8-12, and 14 cover photovoltaic cells including an electrode made of a predominantly organic material and leakage connectors disposed on the electrode. Neither Ichinose nor Yu disclose or suggest such photovoltaic cells. Nor is there any suggestion to combine these references to provide the photovoltaic cells covered by claims 1-3, 5, 6, 8-12, and 14, at least because, as would have been understood by one skilled in the art, the current that is transported through an electrode in a diode detector of the type disclosed by Yu is significantly lower (in some cases on the order of more than a thousand times lower) than the current that is transported by the electrodes of the type used in the photovoltaic cells disclosed in Ichinose. In addition, one skilled in the art may not have even considered Yu even if that person had somehow been motivated to try to modify Ichinose's electrode for at least two reasons. First, as would have been understood by one skilled in the art, it is important to match the work function of the electrode material and the band structure of the photoactive semiconductor material in a photovoltaic cell of the type disclosed in Ichinose. But, Ichinose discloses silicon as the photoactive semiconductor material (see Ichinose, col. 23, lines 44-50), and Yu discloses an organic diode detector. (See Yu at Abstract.) Thus, one skilled in the art may have been concerned that the electrodes disclosed in Yu would not have worked well in Ichinose's photovoltaic cell. Second, as would have been understood by one skilled in the art, it is important when selecting an electrode material for a photovoltaic cell to consider the ability of the material to transport a given charge (positive or negative). However, one skilled in the art would have understood that, when selecting electrode materials for his diode detector, Yu was likely not concerned about the ability of the electrode to transport a given charge (positive or negative). In view of the foregoing, Applicants request reconsideration and withdrawal of the rejection of claims 1-3, 5, 6, 8-12, and 14.

Claim 7 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Yu and Friend et al., U.S. Patent No. 6,498,049 ("Friend"). Claim 7 requires leakage connectors disposed on an electrode formed of a predominantly organic material. Neither Yu nor Friend, alone or in combination, discloses or suggests the subject matter covered by claim 7. There is no suggestion to combine these references to provide such subject matter, and, even if the references were combined, the result would not be the subject matter covered by claim 7. Hence, Applicants request reconsideration and withdrawal of the rejection of this claim.

Applicants believe that the application is currently in condition for allowance, which action is requested. Please apply any charges or credits to deposit account 06-1050.

Respectfully submitted,

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/Sean P. Daley/
Sean P. Daley
Reg. No. 40,978

Fish & Richardson P.C.
225 Franklin Street
Boston, MA 02110
Telephone: (617) 542-5070
Facsimile: (617) 542-8906